

March 6, 2014

Via Electronic Comment Filing System

Ms. Marlene H. Dortch
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Re: WC Docket No. 10-90 –Expression of Interest in Conducting Rural Broadband Experiment

Dear Ms. Dortch:

Enclosed for electronic filing via the Electronic Comment Filing System (“ECFS”) in compliance with Federal Communications (“FCC”) Order, FCC 14-5, are the attached two non-binding Expression of Interest (“EOI”) for Santel Communications Cooperative, Inc., (“Santel”) regarding the Connect America Phase II network experiments. Each EOI is a proposed plan to serve and the same unserved area; however with two separate technologies proposed, Fiber to the Premise (“FTTP”) and Fixed Wireless. Santel is prepared to use either technology, or hybrid, depending on funding available and FCC specific achievable objectives that will be outlined in the final order. Santel appreciates the opportunity to file the non-binding EOIs.

If you have any questions or concerns on the attached EOIs, please contact me.

Respectfully Submitted,



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Attachments (Non-binding EOIs – FTTP and Fixed Wireless)

Santel Communications Cooperative, Inc.

Non-Binding Expression of Interest

Fiber-to-the-Premise Technology Proposal

Non-Binding Expression of Interest – Phase II Rural Broadband Experiment

Santel Communications Cooperative, Inc., (“Santel”) submits this Expression of Interest (“EOI”) for Connect America Phase II Rural Broadband Experiments per Federal Communications Commission (“FCC”) Order, FCC 14-5. This is Stage 1 of the FCC’s Phase II experiment proposals and Santel anxiously awaits release of the Stage 2 formal proposal requirements.

Background

Santel is a current provider of internet, telephone and cable TV in central South Dakota. Sanborn Telephone Cooperative was formed in 1952, Sanborn Telephone Cooperative and its subsidiaries merged on January 1, 2002, and became Santel Communications Cooperative. Santel offers telephone service to Alpena, Artesian, Ethan, Forestburg, Letcher, Mount Vernon, Woonsocket, Parkston, Tripp, and Wolsey. As a cooperative, Santel is managed by a board of directors elected from and by its telephone subscribers, and lead by a general manager.

Santel offers long distance, high-speed broadband, wireless broadband and cable TV. Santel was instrumental in setting up the Sanborn Interactive Video Network (“SIVN”) Distance Learning in this area. In 1998, the SIVN received an award as second in the nation for the work Santel has done with distance learning between business and industry. Management and staff remain committed to the network build plan, exchange by exchange, to ensure its customers would be able to receive advanced technology.

As an Independent Local Exchange Carrier, Santel has Eligible Telecommunication Carrier (“ETC”) status in the state of South Dakota. Santel has been and currently is a recipient of Universal Service Funding and has extensive experience with the requirements of filing required reports and maintaining support.

Santel is proud to provide small town personal service and prides itself in bringing its customers high quality services and looking for opportunities where it can expand its fiber reach in order to bring broadband to areas currently lacking service. Santel is looking forward to bringing this level of service and small town commitment to more areas in central South Dakota.

Partnerships

Santel is currently in preliminary partnership discussions with a local electric cooperative and the De Smet School District (“De Smet”). These potential partnerships provide a unique approach to serve the needs of unserved locations, educational institutions and students.

The cooperative provides service to a vast majority of the proposed area, which are located within the FCC’s designated unserved census tracts. The cooperative is in the initial stages of evaluating SmartHome metering at end user sites and would require two-way connectivity to utilize Smart Grid applications. Connecting SmartHome service via broadband would already be in place and is a way to use joint-use facilities.

De Smet is considering implementing a 1:1 Computer to Student initiative. De Smet is aware the vast majority of their school district serving area does not have a high speed broadband wireline provider and, the incumbent provider has shown no indication in the near term for infrastructure investments to support current students broadband needs. De Smet students require broadband access in rural locations in order to utilize Chromebooks and related curriculum. De Smet has 200 students in Junior and Senior High. If the proposed project is funded, Santel would engage 3 additional school districts in the eligible area with similar a project and involvement to enhance the educational experience of rural students. The school districts are located in the South Dakota communities of Iroquois, Lake Preston, and Arlington.

Proposed Service Area

The proposed service area covers the following census tract numbers: **46077958100, 46077958200, 46005956600 and 46011958700.**

The project is estimated to provide broadband access to a total of 1,455 locations once completed, which are considered Eligible High Cost locations. The proposed area is in Beadle, Brookings and Kingsbury Counties in South Dakota, which is in and next to Santel current serving area. The proposed project will reach into the town and rural communities of Arlington, De Smet Iroquois and Volga in South Dakota. Santel currently has fiber and wireless broadband in its exchanges and would be looking to expand its FTTP footprint to the locations listed above, as well. This project would allow Santel to extend its reach by building out its fiber to deliver broadband and leverage critical resources already in operation today.

Once completed, the proposed project is estimated to provide broadband and voice access to a total of 1,455 eligible high cost to serve locations based on the Federal Communication Commissions (“FCC”) Public Notice, DA 14-154, report dated February 5, 2014 for price cap areas. Of these locations, 491 are extremely high cost to serve locations.

Santel is unable to determine the total number of Community Anchor Institutions (“CAIs”) located within the proposed project since the eligible unserved high cost census blocks within the selected census tracts have yet to be identified; however, Santel currently services many CAIs within its current exchange area through its own network and a partnership with SDN Communications and, if funded, could offer scalable high-speed broadband to additional CAIs located within the proposed service area.

The proposed area is located in 3 counties in eastern South Dakota. The 2010 US Census Data for each county in the proposed area is listed in the chart below:

County	Population	Households	Population Density per Square Mile	Median Household Income
Beadle, SD	17,023	7,210	14	\$43,778
Brookings, SD	28,220	10,665	36	\$45,194
Kingsbury, SD	5,148	2,406	7	\$58,916

Broadband Technology

Santel anticipates using Fiber to the Premises (“FTTP”) for this proposed project area in order to build a high-speed, robust, scalable broadband network. The FTTP network architecture would provide a robust, broadband networking solution that offers virtually unlimited bandwidth and the flexibility to meet the customer demand for two-way, interactive, multimedia-based services. A FTTP network option offers the best longevity, lowest operating expenses, and protection from extreme weather and environment conditions. In the future, only an update of electronics will be necessary to take advantage of next generation connectivity and speeds. FTTP technology will enable Santel the ability to offer a variety of communications and entertainment services, including carrier-class telephony, high-speed Internet access, digital multimedia, Voice over Internet Protocol (VoIP), and interactive, two-way broadband services. Santel has extensive experience with building and maintaining an extensive FTTP network.

Service Offerings

The service offerings anticipated by Santel consists of voice service and high-speed broadband service. The following speed tiers are expected to be available to all homes and businesses passed, including CAIs within the proposed project area:

Residential Telephone	\$20.00
Residential Broadband (Range From)	
25 Mbps	\$40.00
50 Mbps	\$60.00
100 Mbps	\$100.00

Business service offerings will require further evaluation due to the sparsity of rural commercial customers.

Santel is planning on offering these services at or around these pricing levels and is dedicated to providing quality broadband and Santel services at a reasonable price comparable to neighboring providers (utilizing the same technology offering similar services) or urban rates. However, these prices are subject to change depending total cost of construction, actual amount of support received, video content costs, and other expense or expense increases unforeseen at this time.

Funding

Santel estimates this project to have a total cost of approximately \$8,000,000 to \$10,000,000. Under the Rural CAF Experiment program, Santel would pursue government funding for the entire project amount. At this point, Santel is not requesting specific timing of disbursements of Rural CAF Experiment funding, which will depend substantially on the amount of support awarded to the project and the locale of the Eligible High Cost Locations. Santel is prepared to start this project if selected and funding secured. The funding support under the Rural CAF Experiment program would help offset this cost and allow Santel to build an efficient, state of the art FTTP network.

Conclusion

Santel appreciates the opportunity that the FCC is providing by allowing rural local exchange carriers to submit an Expression of Interest for the Rural CAF Experiment. As stated above, Santel is considering a FTTP network build within central South Dakota if the funding would be made available. The network would provide the residents, business and CAI's with a high-speed, robust, scalable broadband network. The network architecture Santel is considering would provide an economical, robust, broadband networking solution that offers bandwidth to an area that has been lacking service.

Santel is a very strong, healthy, dedicated and committed rural telecommunications provider. The staff is extremely knowledgeable and holds the wherewithal to complete the FTTP build and to see it to full fruition while delivering advanced services to each person who lives and works within the proposed service area.

Santel Communications Cooperative, Inc.

Non-Binding Expression of Interest

Fixed Wireless Technology Proposal

Non-Binding Expression of Interest – Phase II Rural Broadband Experiment

Santel Communications Cooperative, Inc., (“Santel”) submits this Expression of Interest (“EOI”) for Connect America Phase II Rural Broadband Experiments per Federal Communications Commission (“FCC”) Order, FCC 14-5. This is Stage 1 of the FCC’s Phase II experiment proposals and Santel anxiously awaits release of the Stage 2 formal proposal requirements.

Background

Santel is a current provider of Internet, telephone and cable TV in central South Dakota. Sanborn Telephone Cooperative was formed in 1952, Sanborn Telephone Cooperative and its subsidiaries merged on January 1, 2002, and became Santel Communications Cooperative. Santel offers telephone service to Alpena, Artesian, Ethan, Forestburg, Letcher, Mount Vernon, Woonsocket, Parkston, Tripp, and Wolsey. As a cooperative, Santel is managed by a board of directors elected from and by its telephone subscribers, and lead by a general manager.

Santel offers long distance, high-speed broadband, wireless broadband; and cable TV. Santel was instrumental in setting up the Sanborn Interactive Video Network (“SIVN”) Distance Learning in this area. In 1998, the SIVN received an award as second in the nation for the work Santel has done with distance learning between business and industry. Management and staff remain committed to the network build plan, exchange by exchange, to ensure its customers would be able to receive advanced technology.

As an Independent Local Exchange Carrier, Santel has Eligible Telecommunication Carrier (“ETC”) status in the state of South Dakota. Santel has been and currently is a recipient of Universal Service Funding and has extensive experience with the requirements of filing required reports and maintaining support.

Santel is proud to provide small town personal service and prides itself in bringing its customers high quality services and looking for opportunities where it can expand its fiber reach in order to bring broadband to areas currently lacking service. Santel is looking forward to bringing this level of service and small town commitment to more areas in central South Dakota.

Proposed Service Area

The proposed service area covers the following census tract numbers: **46077958100, 46077958200, 46005956600 and 46011958700.**

The project is estimated to provide broadband access to a total of 1,455 locations once completed, which are considered Eligible High Cost locations. The proposed area is in Beadle, Brookings and Kingsbury Counties in South Dakota, which is in and next to Santel current serving area. The proposed project will serve rural locations surrounding the communities of Arlington, De Smet Iroquois and Volga in South Dakota. Santel currently has fiber and wireless broadband in its exchanges and would be

looking to expand its fixed wireless footprint to other locations listed above as well. This project would allow Santel to extend its reach by building out its wireless network to deliver broadband.

Once completed, the proposed project is estimated to provide broadband and voice access to a total of 1,455 eligible high cost to serve locations based on the Federal Communication Commissions (“FCC”) Public Notice, DA 14-154, report dated February 5, 2014 for price cap areas. Of these locations, 491 are extremely high cost to serve locations.

Santel is unable to determine the total number of Community Anchor Institutions (“CAIs”) located within the proposed project since the eligible unserved high cost census blocks within the selected census tracts have yet to be identified; however, Santel currently services many CAIs within its current exchange area and, if funded, could offer scalable high-speed broadband to CAIs located within the proposed service area.

The proposed area is located in 3 counties in eastern South Dakota. The 2010 US Census Data for each county in the proposed area is listed in the chart below:

County	Population	Households	Population Density per Square Mile	Median Household Income
Beadle, SD	17,023	7,210	14	\$43,778
Brookings, SD	28,220	10,665	36	\$45,194
Kingsbury, SD	5,148	2,406	7	\$58,916

Broadband Technology

In order to utilize CAF support effectively, Santel will install a fixed wireless technology to serve unserved locations. Santel is the BTA license holder for 2.5Ghz BRS spectrum, which is in operation in neighboring counties. In the proposed area, Santel will deploy 4G LTE services capable of supporting broadband connectivity of 5Mbps to 25 Mbps. The fixed wireless solution will utilize existing towers and will allow Santel an efficient option to provide broadband service to as many locations as possible. This network architecture would provide an economical solution, protected frequencies by using licensed spectrum, hardware uses standards based technology that will be widely deployed world-wide to keep production costs low. LTE standards are already established that allow upgrades to significantly improve service in the future. Fixed wireless technology will enable Santel the ability to offer a variety of Santel and entertainment services, including carrier-class telephony, high-speed Internet access, digital multimedia, Voice over Internet Protocol (VoIP), and interactive, two-way broadband services. Santel has extensive experience with building and maintaining an extensive fixed wireless network.

Service Offerings

The service offerings anticipated by Santel consists of voice service and high-speed broadband service. The following speed tiers are expected to be available to all homes and businesses passed, including CAIs within the proposed project area:

Residential Telephone	\$20.00
Residential Broadband (Range From)	
5/1 Mbps	\$40.00
10/2 Mbps	\$60.00
Cable TV	None planned at this time

Santel is planning on offering these services at or around these pricing levels and is dedicated to providing quality broadband and Santel services at a reasonable price comparable to neighboring providers (utilizing the same technology offering similar services) or urban rates. However, these prices are subject to change depending total cost of construction, actual amount of support received, and other expense or expense increases unforeseen at this time.

Funding

Santel estimates the following costs for this proposed project:

\$400,000- Base Stations
\$250,000- Colocation Leases (10-year)
\$650,000-Total Estimated Project Cost

Of the total estimated project, Santel will fund 25% of the project (\$162,500) and the remaining 75% (\$487,500) to be funded under the Rural CAF Experiment Program. Santel would also cover the cost of Customer Premise Equipment (CPE) for individual customers required to receive the signal and terminate to the customers' home network or device(s). Once this project has been selected and funding secured, Santel is prepared to complete the business and engineering plan within 2 months and construction to completion within 12 months. The funding under the Rural CAF Experiment program would help offset this cost and allow Santel to build an efficient, state of the art fixed wireless network, which will ensure that all rural residents in the proposed area will have access to high-speed internet and voice.

Conclusion

Santel appreciates the opportunity that the FCC is providing by allowing rural local exchange carriers to submit an Expression of Interest for the Rural CAF Experiment. As stated above, Santel is considering a fixed wireless network build within central South Dakota if the funding would be made available. The network would provide the residents, business and CAI's with a high-speed, robust, scalable broadband network. The network architecture Santel is considering would provide an economical, robust, broadband networking solution that offers bandwidth to an area that has been lacking service.

Santel is a very strong, healthy, dedicated and committed rural telecommunications provider. The staff is extremely knowledgeable and holds the wherewithal to complete the fixed wireless build and to see it to full fruition while delivering advanced services to each person who lives and works within the proposed service area.